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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,229	05/07/2001	Sung Rong Jo	P0239/US/SH	8060

7055 7590 05/13/2005

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RESTON, VA 20191

EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,229

Applicant(s)

JO, SUNG RONG

Examiner

Devon C Kramer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 2-4, 6, 8-10, 12-21 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 7, 11, 22, 24 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2) Claims 1, 5, 7, 11, 22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al (5096029) in view of Sigsworth (3183064).

Re: claims 1, 22 and 24-25. Bauer et al show in figure 2 a gas opening/closing pin 23 which opens and closes a gas inlet and outlet 55 formed in a pipe holder 12 which seals one end portion of a cylinder 1 and moves the position of a piston 21 in the cylinder, wherein at least one recess portion d'' which opens the gas inlet and outlet is formed on a side of the outer peripheral surface of the central portion of the gas opening/closing pin and one of an integrally formed washer-shaped boss body portion (46) is formed at a lower end of the opening/closing pin. Bauer et al lacks the teaching of the streamlined recess not extending around the entire outer periphery of the central portion.

Sigsworth teaches a streamlined recess (14, 14a) in an arrangement for controlling the flow of gas.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the pin of Bauer et al with the streamlined recess as taught

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by Sigsworth merely to provide a communication channel adjacent the port and to cut down on the machining costs and to provide a means to allow gas to flow.

In re claim 5, Bauer et al teaches the pin as a bar. The dictionary defines a bar as metal. Col. 3 lines 25-27

Re: claim 7, Bauer et al., as modified by Sigsworth, describe the invention substantially as set forth above, but are silent as to the gas opening/closing pin being a non-metal. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pin of Bauer et al to have been made of non-metal to provide a pin that is structurally durable or non-corrosive, respectively, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

Re: claim 11. Bauer et al as modified by Sigsworth, describe the invention substantially as set forth above, but fail to show the limitation of the at least one recess portion comprising a plurality of streamlined-shaped recesses. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the pin of Bauer et al, as modified by Sigsworth, to have included a plurality of streamlined recesses to increase the total amount of fluid flow through the pin since in In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) the court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

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Conclusion

- 3) The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. King et al teaches a rod with a streamlined recess portion.
- 4) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 571-272-7118. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Devon C Kramer
Examiner
Art Unit 3683

DK

DEVON C. KRAMER
PATENT EXAMINER
Devon Kramer
5/11/05